

airmen had logged millions of hours in what they fondly called "The Blue Box."\* In 1947 the Air Corps became the U.S. Air Force, and Link went on to build simulators for jets, bombers, and the lunar module for the Apollo mission.

Edwin Link's trainer worked so well for the same reason you scored 300 percent better on Bjork's blank-letter test. Link's trainer permitted pilots to practice more deeply, to stop, struggle, make errors, and learn from them. During a few hours in a Link trainer, a pilot could "take off" and "land" a dozen times on instruments. He could dive, stall, and recover, spending hours inhabiting the sweet spot at the edge of his capabilities in ways he could never risk in an actual plane. The Air Corps pilots who trained in Links were no braver or smarter than the ones who crashed. They simply had the opportunity to practice more deeply.

This idea of deep practice makes perfect sense in training for dangerous jobs like those of fighter pilots and astronauts. It gets interesting, however, when we apply it to other kinds of skills. Like, for instance, those of Brazil's soccer players.

### BRAZIL'S SECRET WEAPON

Like many sports fans around the world, soccer coach Simon Clifford was fascinated by the supernatural skills of Brazilian soccer players. Unlike most fans, however, he decided to go to Brazil to see if he could find out how they developed those

\* The military's regard for the efficacy of Link's trainers apparently went only so far. Link was permitted to sell hundreds of his devices to Japan, Germany, and the USSR in the years leading up to World War II, creating a situation where both sides in many dog-fights were, training-wise, evenly matched.

skills. This was an unusually ambitious initiative on Clifford's part, considering that he had gained all his coaching experience at a Catholic elementary school in the soccer non-hotbed of Leeds, England. Then again, Clifford is not what you'd call usual. He's tall and dashing, handsome and radiates the sort of charismatic, bulletproof confidence one usually associates with missionaries and emperors. (In his early twenties Clifford was severely injured in a freak soccer accident—suffering internal organ damage, kidney removal—and perhaps as a result he approaches each day with immoderate zeal.) In the summer of 1997, when he was twenty-six, Clifford borrowed \$8,000 from his teachers' union and set out for Brazil toting a backpack, a video camera, and a notebook full of phone numbers he'd cajoled from a Brazilian player he'd met.

Once there, Clifford spent most of his time exploring the thronging expanse of São Paulo, sleeping in roach-infested dormitories by night, scribbling notes by day. He saw many things he'd expected to find: the passion, the tradition, the highly organized training centers, the long practice sessions. (Teenage players at Brazilian soccer academies log twenty hours per week, compared with five hours per week for their British counterparts.) He saw the towering poverty of the favelas, and the desperation in the players' eyes.

But Clifford also saw something he didn't expect: a strange game. It resembled soccer, if soccer were played inside a phone booth and dosed with amphetamines. The ball was half the size but weighed twice as much; it hardly bounced at all. The players trained, not on a vast expanse of grass field, but on basketball-court-size patches of concrete, wooden floor, and dirt. Each side, instead of having eleven players, had five or six. In its rhythm and blinding speed, the game resembled basketball or hockey more than soccer: it consisted of an

intricate series of quick, controlled passes and nonstop end-to-end action. The game was called *futebol de salão*, Portuguese for “soccer in the room.” Its modern incarnation was called *futsal*.

“It was clear to me that this was where Brazilian skills were born,” Clifford said. “It was like finding the missing link.”

Futsal had been invented in 1930 as a rainy-day training option by a Uruguayan coach. Brazilians quickly seized upon it and codified the first rules in 1936. Since then the game had spread like a virus, especially in Brazil’s crowded cities, and it quickly came to occupy a unique place in Brazilian sporting culture. Other nations played futsal, but Brazil became uniquely obsessed with it, in part because the game could be played anywhere (no small advantage in a nation where grass fields are rare). Futsal grew to command the passions of Brazilian kids in the same way that pickup basketball commands the passions of inner-city American kids. Brazil dominates the sport’s organized version, winning 35 of 38 international competitions, according to Vicente Figueiredo, author of *History of Futebol de Salão*. But that number only suggests the time, effort, and energy that Brazil pours into this strange homemade game. As Alex Bellos, author of *Futebol: Soccer, the Brazilian Way*, wrote, futsal “is regarded as the incubator of the Brazilian soul.”

The incubation is reflected in players’ biographies. From Pelé onward virtually every great Brazilian player played futsal as a kid, first in the neighborhood and later at Brazil’s soccer academies, where from ages seven to around twelve they typically devoted three days a week to futsal. A top Brazilian player spends thousands of hours at the game. The great Juninho, for instance, said he never kicked a full-size ball on

grass until he was fourteen. Until he was twelve, Robinho spent half his training time playing futsal.\*

Like a vintner identifying a lovely strain of grape, a cognoscente like Dr. Emilio Miranda, professor of soccer at the University of São Paulo, can identify the futsal wiring within famous Brazilian soccer tricks. That *elastico* move that Ronaldinho popularized, drawing the ball in and out like a yo-yo? It originated in futsal. The toe-poke goal that Ronaldo scored in the 2002 World Cup? Again, futsal. Moves like the *d’espero*, *el barret*, and *vaselina*? All came from futsal. When I told Miranda that I’d imagined Brazilians built skills by playing soccer on the beach, he laughed. “Journalists fly here, go to the beach, they take pictures and write stories. But great players don’t come from the beach. They come from the futsal court.”

One reason lies in the math. Futsal players touch the ball far more often than soccer players—six times more often per minute, according to a Liverpool University study. The smaller, heavier ball demands and rewards more precise handling—as coaches point out, you can’t get out of a tight spot simply by booting the ball downfield. Sharp passing is paramount: the game is all about looking for angles and spaces and working quick combinations with other players. Ball control and vision are crucial, so that when futsal players play the full-size game, they feel as if they have acres of free space in which to operate. When I watched professional outdoor games in São Paulo sitting with Dr. Miranda, he would point out players who had played futsal: he could tell by the way they held the

\* For a vivid demonstration of futsal’s role in developing the skills of two-time world player of the year Ronaldinho, see [www.youtube.com/watch?v=6180cMhkWJA](http://www.youtube.com/watch?v=6180cMhkWJA).

ball. They didn't care how close their opponent came. As Dr. Miranda summed up, "No time plus no space equals better skills. Futsal is our national laboratory of improvisation."

In other words, Brazilian soccer is different from the rest of the world's because Brazil employs the sporting equivalent of a Link trainer. Futsal compresses soccer's essential skills into a small box; it places players inside the deep practice zone, making and correcting errors, constantly generating solutions to vivid problems. Players touching the ball 600 percent more often learn far faster, without realizing it, than they would in the vast, bouncy expanse of the outdoor game (where, at least in my mind, players run along to the soundtrack of Clarissa tootling away on "The Blue Danube"). To be clear: futsal is not the only reason Brazilian soccer is great. The other factors so often cited—climate, passion, and poverty—really do matter. But futsal is the lever through which those other factors transfer their force.

When Simon Clifford saw futsal, he got excited. He returned home, quit his teaching job, and founded the International Confederation of Futebol de Salão in a spare room of his house, developing a soccer program for elementary- and high-school-age kids that he called the Brazilian Soccer School. He constructed an elaborate series of drills based on futsal moves. His players, who mostly hailed from a rough, impoverished area of Leeds, started imitating the Zicos and Ronaldinhos. To create the proper ambience, Clifford played samba music on a boom box.

Let's step back a moment and take an objective look at what Clifford was doing. He was running an experiment to see whether Brazil's million-footed talent factory could be grafted to an utterly foreign land via this small, silly game. He was betting that the act of playing futsal would cause some

glowing kernel of Brazilian magic to take root in sooty, chilly Leeds.

When the citizens of Leeds heard of Clifford's plan, they were mildly entertained. When they actually witnessed his school in action, they were in grave danger of laughing themselves to death at the spectacle: dozens of pale, pink-cheeked, thick-necked Yorkshire kids kicking around small, too-heavy balls, learning fancy tricks to the tune of samba music. It was a laugh, except for one detail—Clifford was right.

Four years later Clifford's team of under-fourteens defeated the Scottish national team of the same age; it went on to beat the Irish national team as well. One of his Leeds kids, a defender named Micah Richards, now plays for the English national team. Clifford's Brazilian Soccer School has expanded to a dozen countries around the world. More stars, Clifford says, are on the way.